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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,055	03/23/2001	Yuji Takaoka	09792909-4794	5918

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EXAMINER

BEREZNY, NEMA O

ART UNIT	PAPER NUMBER
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2813

DATE MAILED: 07/12/2002

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/816,055

Applicant(s)

TAKAOKA

Examiner

Nema O Berezny

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 17-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 1 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I claims 1-16 in Paper No. 7 is acknowledged.

Drawings

Figures 7A and 7B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The abstract of the disclosure is objected to because there is more than one paragraph. Correction is required. See MPEP § 608.01(b).

Claim Objections

Claims 1 and 7 are objected to because of the following informalities:

Claim 1 line 4 after "semiconductor chips are," delete "incrusted" and insert --
encrusted-- thereto.

Claim 7 line 4 after "semiconductor chips is," delete "incrusted" and insert --
encrusted-- thereto.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States
before the invention by the applicant for patent, except that an international application filed under the
treaty defined in section 351(a) shall have the effect under this subsection of a national application
published under section 122(b) only if the international application designating the United States was
published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the
invention by the applicant for patent, except that a patent shall not be deemed filed in the United
States for the purposes of this subsection based on the filing of an international application filed under
the treaty defined in section 351(a).

Claims 1-4 and 13-14 are rejected under 35 U.S.C. 102(e) as being anticipated
by Fillion et al. (6,239,980). Fillion discloses a semiconductor device, comprising: a
plurality of chips (Fig.1 el.22,24) mounted on a substrate (el.38; col.5 lines 51-56); an
insulation film (el.53) on said substrate, wherein said plurality of chips is encrusted in
said insulation film (Fig.1); wiring (el.74) provided on said insulation film and connected
to said chips through a connection hole in said insulation film, wherein said wiring is a
shared circuit between two or more of said plurality of chips (Fig.1); an upper insulation

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film (el.190,202) provided on said insulation film that covers said wiring; and an external electrode (el.212) provided on said upper insulation film, connected to said wiring through a connection hole (el.210) formed on said upper insulation film (col.8 lines 49-53).

Claims 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Sudo et al. (5,475,264). Sudo discloses a semiconductor device, comprising: an insulation layer (Fig.8 el.22) supporting a plurality of chips (el.23), wherein a surface of said plurality of chips is encrusted in said insulation layer and another surface of said plurality of chips is exposed (Fig.8); wiring provided on said insulation layer and connected to each chip, wherein said wiring is shared between two or more of said plurality of chips (col.4 lines 20-28; Fig.8 no numbers); an upper insulation film (el.11) provided on said insulation layer that covers said wiring (Fig.8); an external electrode connected to said wiring through a connection hole formed in said upper layer insulation film (Fig.8 no numbers); and a shared power supply circuit (col.3 lines 35-46).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-6 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fillion as applied to claims 1-4 and 13-14 above, and further in view of Sharma (5,552,633). Fillion does not disclose a shared power supply circuit or a shared electrostatic protection circuit. However, Sharma discloses a multi-chip module in which shared circuitry for power and electrostatic protection is provided (col.8 lines 3-21). Therefore, it would have been obvious to a person skilled in the art at the time of the invention to use the shared power and electrostatic protection circuitry of Sharma with the semiconductor device of Fillion in order to couple power to a chip through a low ohmic resistance path (Sharma – col.8 lines 7-13), and to provide electrostatic discharge protection to the integrated device through the ground terminal (col.8 lines 13-21).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sudo as applied to claims 7-11 above, and further in view of Sharma (5,552,633). Sudo does not disclose a shared electrostatic protection circuit. However, Sharma discloses a multi-chip module in which shared circuitry for electrostatic protection is provided (col.8 lines 17-21). Therefore, it would have been obvious to a person skilled in the art at the time of the invention to use the shared electrostatic protection circuitry of Sharma with the semiconductor device of Sudo in order to provide electrostatic discharge protection to the integrated device through the ground terminal (col.8 lines 13-21).

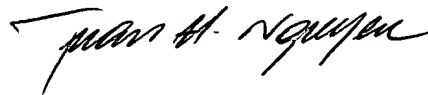
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nema O Berezny whose telephone number is (703) 305-3445. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on (703) 306-2794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

NB
July 8, 2002



Tuan H. Nguyen
Primary Examiner